



SCHOOLYARD NATURE NOTES

Second Quarter, School Year 2015-2016, Issue 5

Sharing news and resources for outdoor nature-based education with K-12 school communities in York County and Poquoson.



Outreach Goal: Provide teachers with useful tools, relevant resources, and practical tips for nature-based studies across the curriculum.



What's Habitat-ing at Our Schools?



SPOTLIGHT on Bethel Manor ES, Contributed by Jenna Rowe and Sabrina Lee, BMES First Grade Teachers



First Graders at BMES spent the first quarter learning about monarch butterflies. Ms. Rowe's and Ms. Lee's classes got hands-on experience with the life cycle of the butterflies, as they got to watch eggs hatch and the caterpillars grow and become butterflies.



Both classes loved watching the daily changes in our classroom butterfly condos. The love of butterflies has transferred over into the students' homes, as some found their own caterpillars to watch go through life cycle, and

some even dressed up as butterflies for Halloween.

Near the end of October, as a culminating event, we celebrated our learning through a butterfly release party. We invited



parents to experience the release and our excitement for butterflies.

Each class wrote and illustrated a book, *Monarch, Monarch What Do You See?* that takes the reader through the monarch life cycle. Each class also created a video to showcase their knowledge of the butterflies. In addition to our videos, our combined classes performed the play, *The Very Hungry Caterpillar*, for our parents. Our students were invited to reprise the skit at Bethel Manor's annual Barnes and Noble



Night on Dec. 1.

As we transition into the Thanksgiving holiday, some of our students chose to disguise their turkeys as Monarch butterflies.

Our students were thoroughly invested in their learning and love to share everything they have learned with others.

See next page for video links.



Now Showcasing Nature-Themed Student Work

Student prose, poetry, photos, artwork, and links to videos depicting a local-nature theme will be incorporated in future issues of the **4-H Schoolyard Nature Notes**. ** Please only send us digital files of student work (keep original work).



Celebrate Monarchs with Bethel Manor First Graders!

Learn about monarchs by watching these videos from our newest monarch citizen scientists!



Ms. Rowe's 1st Grade Class: <https://youtu.be/0WuVv4HuZ2E>



Ms. Lee's 1st Grade Class: https://www.youtube.com/watch?v=_RzFf1sSZ60

Follow along as the students read, *Monarch, Monarch, What Do You See?*



Ms. Rowe's class: <https://youtu.be/D1FHBsMIMNk>



Ms. Lee's class: <https://www.youtube.com/watch?v=VZLN-ToaS0I>



Students from both classes performed *The Very Hungry Caterpillar* by Eric Carle.



<http://youtu.be/kqTdGY9Q1Ks>



So what do you do if you are a turkey who does not want to be eaten on Thanksgiving?

Why you disguise yourself as a monarch butterfly, of course!



The disguised turkey to the left comes from Madi. L.

Listen to Alexis S. as she describes her disguised turkey:

<https://www.youtube.com/watch?v=VwMQuZH9kYw>

Here's a YCSD press release about the "Benefits of Butterfly Gardens," 30 Oct:
<http://yorkcountyschools.org/aboutUs/pressRoom/news/view.asp?ID=1568>

A standing ovation to BMES teachers Ms. Jenna Rowe and Ms. Sabrina Lee for engaging students with hands-on nature-based education and submitting these wonderful photos & videos!





FEATURED CITIZEN SCIENCE STARRING BIRDS!

TheCornellLab

Audubon

BIRD STUDIES
ÉTUDES D'OISEAUX CANADA

The Great Backyard
Bird Count



Art by Charley Harper

Since 1998, the Cornell Lab of Ornithology and the National Audubon Society have partnered on a citizen science project

known as the **Great Backyard Bird Count (GBBC)**. (<http://gbbc.birdcount.org/about/>)

Over the Presidents' Day holiday weekend each February, this project collects what amounts to an annual weekend snapshot of the "distribution and abundance" of wild birds. Afterwards, scientists review the data and issue a summary on the GBBC website. Here is a link to the summary from February 2015: <http://gbbc.birdcount.org/2015-gbbc-summary/>

This activity is a terrific tool for engaging student observation skills. We are providing our 18 participating schools in York County and Poquoson with laminated bird identification sheets and one or more beginner bird ID guides. The minimum period for observation is only 15 minutes. Clear instructions are provided on the GBBC website, along with a PowerPoint slideshow for added assistance. While there may be birds you cannot identify, or too many to count, or no birds at all, do not let that discourage you from participating! Read helpful FAQs here: <http://gbbc.birdcount.org/help-faqs/>

eBird is the online tool used to collect the GBBC data, so each teacher may wish to set up an individual account for the class. While we encourage participation in February's GBBC, eBird also collects bird counts conducted on any day of the year.

Quick Start Guide to using eBird: <http://help.ebird.org/customer/en/portal/articles/973977-ebird-quick-start-guide>

Information about **reporting the specific location of your bird count** (more specific than just the city and state):

<http://help.ebird.org/customer/en/portal/articles/1006775-understanding-how-to-plot-your-location>

General eBird tips: <http://help.ebird.org/>



BIRD OF THE QUARTER: Great Horned Owl

(Bird photos and written passages excerpted directly from Cornell Lab of Ornithology's informative [All About Birds](#) website.)

"With its long, earlike tufts, intimidating yellow-eyed stare,

and deep hooting voice, the Great Horned Owl is the quintessential owl of storybooks. This powerful predator can take down birds and mammals even larger than itself, but it also dines on daintier fare such as tiny scorpions, mice, and frogs. It's one of the most common owls in North America, equally at home in deserts, wetlands, forests, grasslands, backyards, cities, and almost any other semi-open habitat between the Arctic and the tropics.

Size & Shape. These are large, thick-bodied owls with two prominent feathered tufts on the head. The wings are broad and rounded. In flight, the rounded head and short bill combine to create a blunt-headed silhouette.

Links to more information about the Great Horned Owl:

Great Horned Owl FAQs: <http://www.birds.cornell.edu/page.aspx?pid=2710>

More resources to explore:

http://www.biokids.umich.edu/critters/Bubo_virginianus/

<http://animals.nationalgeographic.com/animals/birds/great-horned-owl/>

<https://www.audubon.org/field-guide/bird/great-horned-owl>

Hoo-hoo-hoo, hoooo...hooho. Great Horned Owls make distinctive sounds. Listen to recordings of them and other owls at Journey North:

<http://www.learner.org/jnorth/tm/spring/OwlDictionary.html>

By dissecting owl pellets, students learn about food chains and food webs.

<http://www.scholastic.com/teachers/lesson-plan/dissecting-owl-pellets>



Color Pattern. Great Horned Owls are mottled gray-brown, with reddish brown faces and a neat white patch on the throat. Their overall color tone varies regionally from sooty to pale.

Behavior. Great Horned Owls are nocturnal. You may see them at dusk sitting on fence posts or tree limbs at the edges of open areas, or flying across roads or fields with stiff, deep beats of their rounded wings. Their call is a deep, stuttering series of four to five hoots.

Habitat. Look for this widespread owl in woods, particularly young woods interspersed with fields or other open areas. The broad range of habitats they use includes deciduous and evergreen forests, swamps, desert, tundra edges, and tropical rainforest, as well as cities, orchards, suburbs, and parks."



Taxonomy of the Great Horned Owl

Kingdom: Animalia	(Animals)
Subphylum: Vertebrata	(Vertebrates)
Class: Aves	(Birds)
Order: Strigiformes	(Owls, chouettes, +)
Family: Strigidae	(Typical Owls)
Genus: Bubo	(Horned Owls)
Species: <i>Bubo virginianus</i>	(Gmelin, 1788)

TABB ES STUDENTS CELEBRATE AUTUMN WITH ART



In Search of K-12 Student & Teacher Works Featuring Local Plants, Wildlife, and Nature!

Student prose, poetry, photos, and artwork with a local-nature or seasonal theme will continue to be featured in all future issues of the **4-H Schoolyard Nature Notes**. We would also love to publish the same types of works as created by teachers!

**** Please only send us digital photos or files of artwork for consideration (keep original work). ****

Below are the deadlines for submissions to the next two issues of **4-H Schoolyard Nature Notes**:

Winter/Early Spring (3rd Quarter) Issue: **Friday, 15 January 2016**

Spring/Summer (4th Quarter) Issue: **Friday, 25 March 2016**



Wild About Birds at School



Each of our 18 participating schools will receive an **8' wooden post** for hanging one or more of their new bird-friendly amenities. The post will need to be installed with concrete, and that information will be provided when the post is delivered. Consider siting your post with edges facing cardinal directions, so that the post itself becomes a permanent tool in the habitat that students may use for noting wind direction, making habitat maps, etc. In 2016, we plan to provide each school with a **small directional sign** with an arrow pointing north that may be affixed to the post.

Each of these 18 schools will also receive an **insect hotel frame** like the one shown to the right. These give our native insects added shelter in the schoolyard habitat. The outside may be painted with non-toxic paints or decorated in creative ways using non-toxic adhesive. Students then search for natural materials like twigs, pinecones, and straw to stuff the cavities. This blog from the United Kingdom provides additional information: <http://www.growveg.com/growblogpost.aspx?id=329> Once your school's insect hotel is ready, be sure to email a photo for inclusion in the newsletter!!



Consider laminating the **nature-based posters** we are distributing, so that these may be rotated in and out of display at the school from one year to the next. In January 2016, each of the 18 schools will receive a **reference binder** chock full of helpful information about a schoolyard habitat and the wildlife visitors it supports.



Late Fall & Winter Habitat Care and Stewardship



Late fall and winter walks reveal the "bones" of your habitat. It is an ideal time to analyze your habitat's layout, the pathways, the best vantage points, and the ability to easily reach into the habitat for maintenance.

http://www.mtcubacenter.org/images/PDFs-and-SWFs/Bones_of_the_Garden_January_2014_1.pdf



In our transitional zone, **planting and transplanting** may be done **so long as the soil is loose and not frozen**. Consider moving plants that are crowding your habitat pathways. Pot up extra plants to swap with other schools or to give as gifts to families who volunteer their assistance at scheduled habitat workdays.

Over the fall and winter, some perennials die back to the ground and disappear, others leave brown or gray stalks, and still others sprout new leaves at ground level only. Leave these perennials "as is" over the winter since they will continue to provide food and shelter to insects and birds. **Fall and winter clean-up** should be limited to weeding and mulching. **Hold off on cutting back the plant stalks to the ground until early March!**

Monarch Migration Updates from Journey North

Journey North posted a graphic of the monarch's migration path overlaid by **Hurricane Patricia's** path:

https://www.learner.org/jnorth/monarch/fall2015/c102915_patricia.html



Good news?

https://www.learner.org/jnorth/monarch/fall2015/c102915_graph.html

Follow the above link to a graph depicting the number of **monarch roosts** reported to Journey North during migration through the Midwest from 2011-2015.

What do you think about it?



LATE FALL/WINTER OUTDOOR EDUCATIONAL ACTIVITIES

Native wildlife activity continues throughout the year! Guide your students on a refreshing winter walk. Explore the outer edges of the grass field where two

habitats meet. These transitional zones are often rich with activity. Look for squirrel and bird nests, fungi, mistletoe, and branch structures. Practice a bird count!

Recycling and Upcycling

All of our schools are recycling paper and cardboard as part of regular waste management at school. Some schools and/or PTAs also collect printer ink cartridges, old phones, and other items for which the school may receive money. Still other options exist as more companies engage in **upcycling**, or "process[ing] (used goods or waste material) so as to produce something that is often better than the original." (Dictionary.com)



TerraCycle® has dedicated its mission to upcycling materials not easily recycled. This company works with corporate partners and then sets up collection programs, called Brigades®, for specific post-consumer waste products. <https://www.terracycle.com/en-US/pages/about-us.html>

They then use these to make and sell consumer products: <https://www.terracycle.com/en-US/products.html>
Besides feeling good about diverting waste from landfills, schools have opportunities to earn money!

TerraCycle provides an online guide to engaging the community in helping collect materials for a Brigade®: https://s3.amazonaws.com/tc-us-prod/download_resource/downloads/1683/Engaging_Your_Community_Guide.pdf

Seven companies in the **fashion industry** that are dedicated to upcycling are profiled in this blog post: <http://daniellelvermeer.com/blog/upcycled-fashion-companies>

The Institute of Scrap Recycling Industries and JASON Learning have teamed up to sponsor a K-12 contest, **"Recycling is Bigger than the Bin."** Entries are due 18 December 2015, though it would be a wonderful project even without entering contest! <http://www.jason.org/contest/2015-2016-recycling-bigger-bin-contest>



Fall is the Best Time to Plant a Tree! Tree Planting Tips: <https://www.plt.org/blog-tree-planting-tips>
Trees Protect Water. http://www.dof.virginia.gov/infopubs/_forest-facts/FF-Trees-Protect-Water_pub.pdf
Trees Provide Habitat. http://www.dof.virginia.gov/infopubs/_forest-facts/FF-Trees-and-Wildlife_pub.pdf

Congratulations to YCSD for receiving a \$75,000 NOAA/B-WET Grant for a new Project-Based Environmental Literacy Program.

4-H SCHOOLYARD NATURE NOTES

4-H Schoolyard Nature Notes is produced expressly for YCSD and PCPS communities by VCE-York/Poquoson's **4-H Schoolyard Habitats Outreach** volunteers. The newsletter is distributed each quarter of the school year via email to principals and PTA/PTSA/PTO representatives.

The appearance of external hyperlinks does not constitute endorsement by Virginia Cooperative Extension of the linked web sites, or the information, products, or services contained therein. Unless otherwise specified, VCE does not exercise any editorial control over the information you find at these locations. All links are provided with the intent of helping teachers increase and improve nature-based education delivered to K-12 students during school hours. Please inform us if any external links are broken or found to be inappropriate.

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4-H SLOGAN: Learn By Doing



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